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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,803	06/12/2000	HERVE CROZIER	365-444P	3623

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EXAMINER	
LEE, RIP A	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/530,803	CROZIER, HERVE	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *November 21, 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-15* is/are rejected.

7)☒ Claim(s) *2-5, 7-9, 12, 14 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 2-5, 7-9, 12, and 14 are objected to because of the following informalities: Since independent claim 1 is drawn to a molded article, all references to claim 1 must also be drawn to a molded article. That is, the subject of the dependent claims is also drawn to a molded article rather than a polymer composition. Claims should state, "The molded article according to claim 1, wherein..." Appropriate correction is required.

2. Claim 3 is objected to because of the following informalities: Please replace "the measured" with " a measured" and replace "the nominal" with "a nominal." Appropriate correction is required.

3. Claim 4 is objected to because of the following informalities: Please replace "together for a 5 and 6 memebered" to "together form a 5 and 6." Appropriate correction is required.

4. Claim 5 is objected to because of the following informalities: Replace "3-ethyl-hexane" with "3-ethyl-1-hexene." Appropriate correction is required.

5. Claim 9 is objected to because of the following informalities: Replace "pyrol" with "pyrrole" and "Phtalocyanine" with "phthalocyanine." Appropriate correction is required.

6. Claim 15 is objected to because of the following informalities: The claims recite use of 2 parts to 5 parts by weight of pigment. It is not clear whether this limits further the claimed range of 2 wt % to 5 wt % of claim 10, from which claim 15 ultimately depends. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-5, 7-9, and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is lack of antecedent basis for the term "polymer nucleated with a polymerized vinyl compound" in claim 1. Since claims 2-5, 7-9, and 12-14 depend from claim 1, they are subsumed under the rejection.

9. Claims 10, 11, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is lack of antecedent basis for the term "modified catalyst" in claim 10. Since claims 11 and 15 depend from claim 10, they are subsumed under the rejection.

10. Claims 1-5 and 7-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are drawn to an article that exhibits a delta max for cross direction shrinkage of less than 0.38 %. The description of the claimed article is unclear. According to the specification, a series of articles containing the same resin but different pigments was prepared, in addition to one article containing no pigment. The cross direction shrinkage of each material was determined, and delta max corresponds to the difference between the highest and lowest values of cross direction shrinkage. As such, one single article can not exhibit a delta max value. Furthermore, delta max measurements do not appear to be universal but specific only to the three pigments shown in the specification. Therefore, the description of this property associated with the claimed article is vague and indefinite. Clarification is required.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiga *et al.* (U.S. 4,551,501) alone, or in view of Stretanski *et al.* (U.S. Patent No. 4,670,491) and/or Wang *et al.* (U.S. Patent No. 4,192,794).

Shiga *et al.* discloses a molded article made from a polymer composition comprising a blend of crystalline polypropylene and 0.05-10,000 ppm by weight of a vinyl cycloalkane (claim 1). Treatment of a Ti/Et_3Al catalyst with vinyl cyclohexane for 15 minutes results in the formation of poly(vinyl cyclohexane) containing the active catalyst. In a subsequent step, propylene is polymerized in the presence of the catalyst modified with a polymer containing vinyl units, prepared previously (see Example 1). Thus, the general method of nucleation and subsequent polymerization recited in the instant claims is taught in Shiga *et al.*

The inventors contemplate the use of additives normally incorporated into polypropylene, such pigments (col. 3, line 50), however, no specific amount of pigment is disclosed. Nonetheless, it is maintained that one of ordinary skill in the art would have found it obvious to arrive at the claimed range of colorant since it has been deemed that the discovery of optimum

values of result-effective variables in a known process is within the level of ordinary skill in the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980).

One of ordinary skill in the art, requiring more guidance, needs only turn to Stretanski *et al.*, which teaches polypropylene compositions containing 2.5 wt % titanium oxide (a non-black pigment) as pigment (Table III), or Wang *et al.*, which reveals polypropylene resin pigmented with 5 wt % TiO_2 (Table 1). None of the references indicates that these amounts have detrimental effects on the polyolefin product. Therefore, it would have been obvious to one having ordinary skill in the art to use 2.5 wt %, or even 5 wt%, of TiO_2 pigment for imparting color to polypropylene resin, thereby arriving at the subject matter of the instant claims. One having skill in the art would reasonably expect such a combination to work because it is taught in the prior art.

Shiga *et al.* is silent with respect to the particular properties recited in present claims, however, a reasonable basis exists to believe that the prior art compositions would exhibit the same properties, especially in view of the fact that the prior art recites essentially the same composition. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Shiga *et al.* also use the composition for the manufacture of articles by the injection, extrusion, and blow molding techniques recited in present claim 12 (see col. 3, lines 60-63), and it would be obvious to one having skill in the art to use these molding techniques for making similar articles of manufacture. Regarding claim 13, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See MPEP § 2111.02. There is no indication that the composition of the prior art can not be made into the claimed articles of manufacture. As such, the composition still meets the claims.

14. Claims 1-5 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiga *et al.* in view of JP 2-41343.

The discussion of the disclosures of the prior art of Shiga *et al.* from the previous paragraph of this office action is incorporated here by reference. The inventors contemplate the use of pigments (col. 3, line 50), however, no specific amount of pigment is disclosed. JP 2-41343 relates to pigmented propylene compositions. The patent shows that organic pigments such as cyanine blue and quinacridone red are used preferentially in an amount of 1-5 wt % (see abstract). Since Shiga *et al.* contemplates use of pigments, and since cyanine blue and quinacridone red are known pigments for coloring polypropylene, it would have been obvious to one having ordinary skill in the art to use the pigments of JP 2-41343 in the propylene compositions of Shiga *et al.* in order to provide the desired color to the resin, and one of skill in the art would have expected such a combination to work.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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May 12, 2006

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